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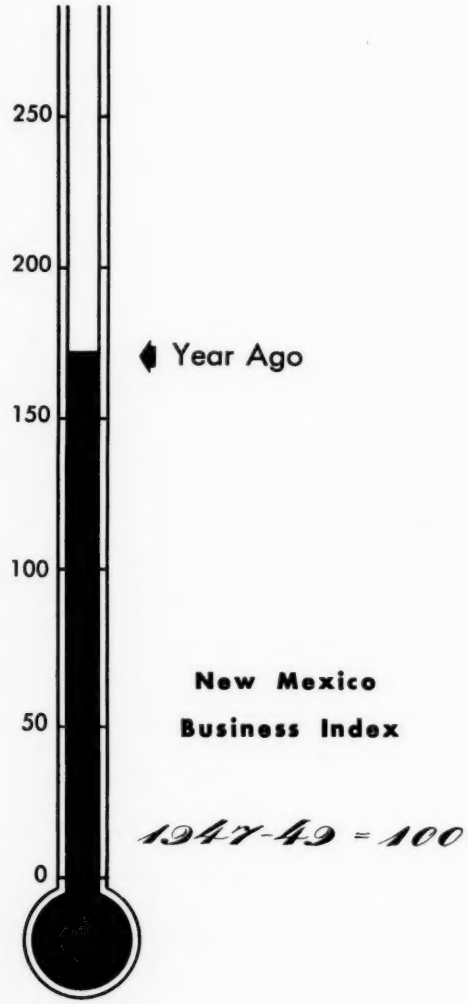
New Mexico BUSINESS



Recent Highlights

February's Index of Business Activity in New Mexico, while only slightly higher than a year ago, nevertheless set a record for the month. Last month's retail sales were up 6 per cent over January, but were down by more than 5 per cent from February last year, due mostly to a 16 per cent drop in sales of new cars. Electric power production declined slightly in February, as usual. Life insurance sales, bank debits, and bank loans and discounts were likewise down for the month, but all save life insurance were above their levels of a year ago. The greatest gains for the month were in manufacturers' sales, up 68 per cent, and in building permits, up nearly 88 per cent. Although February saw an encouraging gain in lead output, total metallics production for the month was down nearly 23 per cent, due to a slump in copper mining. No zinc was mined during the month in the State, and wage employment in all mining was down 5 per cent.

in this issue

- ground water for irrigation--
  new wealth, new problems for agriculture

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Irrigation Trends

OF NEW MEXICO'S total land area, 8.4 per cent was in irrigated farms in 1949, the last year for which complete figures are available. The percentage has undoubtedly increased since then due to the continued development of new supplies of ground water for irrigation. (Except for the San Juan, the flowing streams of the State have long since been developed to near their maximum utility for irrigation under present conditions of land tenure.)

From 1939 to 1949 land irrigated by pumped ground water increased 246 per cent in the State, from 75,556 acres to 261,897 acres. Figures from previous decades show the static nature of surface stream irrigation in the State, and the contrasting rapid development of ground water:

	Acres Irrigated	
	Streams (gravity)	Pumped from wells
1919	432,478	15,709
1929	430,099	30,425
1939	343,684	75,556
1949	397,215	261,897

Much of the stream irrigation in the State has gone onto subsistence farms. Ground water irrigation has little or no place on the subsistence farm because the farms must be on a high cash-income basis. Wells, pumps, and land leveling cost considerable money. The average cost of irrigation wells alone in New Mexico is probably close to $4,000 per well.

The cost of installing and maintaining ground water irrigation systems also increases the demand for farm credit. The newer irrigated farms in the State are highly capitalized enterprises, and the farmers themselves, in common with many other types of businessmen, often furnish only a part of the necessary investment. As a recent comment in NEW MEXICO BUSINESS (October 1953) indicated, out-of-state insurance companies are providing much of the capital going into new irrigation developments.

The fifteen southernmost counties of the State contained 34 per cent of all irrigated land in the State in 1899 when most irrigation was by surface water; by 1949 they contained 63 per cent due largely to ground water development. In the latter year six counties, Chaves, Dona Ana, Eddy, Lea, Roosevelt, and Luna, accounted for 54 per cent of the total. The six counties irrigated 376,095 acres, with Chaves county alone accounting for 100,797 acres.

In recent years Lea county has gained most rapidly in irrigated area. The county had 1,967 acres under irrigation in 1939; by 1949 this area had increased to 61,931 acres, all of it supplied by ground water.

A recent bulletin of the Experiment Station at New Mexico A & M College gives many details on the cost of pumping irrigation water in Lea county. The study, by William P. Stephens, reports that the value of farm crops sold in the county rose from $24,389 in 1939, to $3,396,799 in 1949, while the irrigated acreage increased from less than 4,000 acres in 1944 to approximately 100,000 acres in 1952.

Of 58 wells studied, the number of acres served by each well varied from 27 to 190, and averaged 108. Cotton was the principal crop in 1952, taking about two-thirds of the irrigated acreage. Other crops of importance were alfalfa, sorghum, and pasture.

The average lift of the wells was 77 feet, with a range from 52 to 93 feet. The yield of the wells averaged 1,190 gallons per minute.

Most of the pumps, 75 per cent of the total, were powered by small industrial or automotive engines. Most of the engines burned butane, although some burned natural gas. Electric motors were used for power on the remaining 25 per cent of the pumps.

The average original investment in pumping plants, including well, pump, power unit, and fuel tank where necessary, was $3,747 for the wells surveyed. Electrical units averaged $3,362, while industrial type engine units averaged $4,113.

Overhead costs averaged $383 for all units, $300 for electrical units, and $421 for industrial engine units. Operating costs averaged $683 for all wells, $638 for electrical units, and $773 for industrial engine units.

Since the original investment, overhead and operating costs were all lower for electrical installations, it is probable that the internal combustion units were used only where electric power was unavailable.

BUSINESS ACTIVITY IN NEW MEXICO

	February Index (1947-49 mo. av. = 100)	Per Cent Change February 1954 From January 1954	Per Cent Change February 1954 From February 1953
Index of Business Activity	171.2	+ 2.8	+ 0.7
Sales of Retail Stores	134.1	+ 6.1	- 5.6
Apparel Stores	99.8	- 18.7	- 3.0
Automotive Dealers	123.8	+ 0.4	- 16.3
Subsistence Stores	148.0	+ 11.3	- 3.6
Furniture & Appliance Stores	142.9	+ 33.6	+ 24.7
Building Materials Dealers	111.6	+ 18.6	+ 0.4
Other Retail Stores	143.4	+ 3.4	- 3.1
Amusement Sales	115.9	+ 5.9	- 5.6
Service Sales	186.8	- 6.6	+ 6.6
Contractors' Sales	232.6	- 17.6	- 1.7
Wholesale Sales	109.6	+ 0.1	- 5.9
Public Utility Sales	174.8	- 20.0	- 31.3
Manufacturers' Sales	345.7	+ 68.3	+ 39.4
Life Insurance Sales	199.7	- 10.2	- 1.9
Bank Debits	154.3	- 13.4	+ 0.7
Bank Loans and Discounts	124.7	- 16.0	+ 4.9
Demand Deposits	144.3	+ 0.7	+ 1.7
Time Deposits	176.5	- 0.2	+ 8.9
Postal Receipts	161.3	- 14.3	+ 8.0

	February Index (1947-49 mo. av. = 100)	Per Cent Change February 1954 From January 1954	Per Cent Change February 1954 From February 1953
Wage Employment	131.3	- 0.4	- 0.3
Manufacturing	160.3	+ 1.3	- 1.2
Mining	118.0	- 4.9	- 12.8
Transportation and Utilities	125.9	- 4.5	- 2.6
Trade	137.0	+ 0.2	+ 1.8
Finance	194.2	+ 5.6	- 5.0
Services and Miscellaneous	107.6	- 0.9	+ 1.3
Government	149.0	+ 0.2	+ 3.4
Contract Construction	98.9	+ 3.3	0.0
Building Permits	194.4	+ 87.6	+ 11.3
Petroleum Production	141.9	- 13.5	+ 5.0
Electric Power Production	150.8	- 10.8	+ 3.7
Metallics Production - Total	50.6	- 22.8	- 44.7
Mine Production - Copper	80.4	- 26.1	- 21.8
Mine Production - Lead	25.0	+ 56.6	- 72.5
Mine Production - Zinc	0.0	0.0	-100.0
Mine Production - Coal	13.3	- 25.9	- 73.8
Mine Production - Potash	193.6	- 7.5	+ 8.2
All Farm Prices	93.8	+ 3.9	- 7.5
Livestock Prices	96.0	+ 6.0	- 5.6
Crop Prices	96.0	- 1.2	- 11.7

	March Index (1947-49 mo. av. = 100)	Per Cent Change March 1954 From February 1954	Per Cent Change March 1954 From March 1953
Bank Debits	185.0	+ 19.9	+ 8.0
Bank Loans and Discounts	151.6	+ 21.6	- 2.3
Demand Deposits	140.5	- 2.6	+ 2.8
Time Deposits	177.7	+ 0.7	+ 9.0
Building Permits	358.9	+ 84.6	+ 79.9
Postal Receipts	191.5	+ 18.7	+ 12.5
All Farm Prices	92.4	- 1.5	- 8.2
Livestock Prices	93.6	- 2.5	- 6.4
Crop Prices	97.2	+ 1.2	- 12.2

BUSINESS ACTIVITY BY DISTRICTS

District	1	2	3	4	5	6	7	8	9
March 1954 Compared With February 1954									
Bank Debits	+ 9.0	+ 34.4	+ 27.9	+ 27.7	+ 4.4	+ 12.6	+ 1.6	+ 10.0	+ 9.9
Loans and Discounts	+ 21.3	+ 2.0	+ 9.1	+ 33.8	+ 15.6	- 8.4	+ 25.7	+ 21.8	+ 15.2
Demand Deposits	- 0.2	- 1.8	- 5.0	+ 1.7	- 21.2	- 3.5	- 3.8	- 4.3	- 5.9
Time Deposits	+ 0.2	+ 1.0	+ 0.4	+ 1.6	- 6.2	- 0.6	+ 2.4	- 0.5	+ 0.1
Postal Receipts	+ 14.7	+ 19.0	+ 18.6	+ 14.4	+ 24.5	+ 25.3	+ 31.2	+ 29.4	+ 21.1
March 1954 Compared With March 1953									
Bank Debits	+ 12.4	+ 9.8	- 1.6	+ 14.0	- 13.4	+ 2.3	- 9.9	- 1.9	+ 5.5
Loans and Discounts	+ 4.7	+ 8.4	- 3.3	- 7.1	- 16.2	- 9.3	- 10.0	+ 13.3	+ 10.4
Demand Deposits	+ 6.9	+ 17.5	- 8.2	+ 6.7	- 16.6	- 6.3	- 6.3	- 0.5	- 1.4
Time Deposits	+ 0.4	+ 12.9	+ 13.5	+ 9.6	+ 7.2	+ 3.6	- 2.1	+ 24.1	+ 12.4
Postal Receipts	+ 21.5	+ 9.5	+ 24.6	+ 8.7	+ 7.7	+ 0.7	+ 13.1	+ 24.6	+ 20.1

Source of data:
Retail Sales data: N. M. Bureau of Revenue
Potash Production: N. M. Bureau of Revenue
Petroleum Production: N. M. Bureau of Revenue
Life Insurance Sales (New Ordinary): Life Insurance Agency Management Association
Wage Employment (all categories): N. M. Employment Security Commission
Electric Power Production: Federal Power Commission
Metallics Production: U. S. Bureau of Mines
Coal Production: N. M. State Mine Inspector
Farm Prices: U. S. Bureau of Agricultural Economics
Bank data (all series), Postal Receipts, Building Permits: Bureau of Business Research

(Continued from page 2)

From what scanty information is available, it would appear that the quality of water for irrigation throughout the State is generally satisfactory. Pecos River water in Chaves and Eddy counties, and some of the ground water there, has a high content of dissolved salts. Fortunately the soils contain gypsum, a natural antidote for salinity. When surface water supplies are low along the Rio Grande, the runoff following summer downpours from tributaries such as the Puerco and the Galisteo may contain silt in harmful quantities. In general, however, the quality of Rio Grande water is rated excellent for irrigation purposes.

A more difficult problem concerns the possibilities for further expansion of irrigation by ground water, and indeed the stability of some of the existing developments. Certainly there are limits to the amount of water that can be pumped out of the ground in dry New Mexico. If ground water supplies are overdeveloped, those limits will make themselves known by declining water yields and increased pumping costs.

Declining farm income could set a purely economic limit on irrigation expansion, too. The same six counties which led in ground water irrigated acreage are also the leading cotton producing counties of New Mexico. Cotton at its supported price or higher has in fact paid the bills so far for much of the new development in ground water irrigation. The current reductions in cotton acreage are not likely to reduce the cotton farmers' income, since the farmers are assured support price for their crop, and hence will be making every effort to increase yields on their curtailed plantings. But if a cotton-surplus crisis builds up to the proportions of the potato crisis of a few years ago, New Mexico cotton farmers may have to look for other cash crops. While they are looking, the rate of irrigation expansion may slow down or even go into reverse. VTX, PMS

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